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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,566	05/10/2001	Manfred T. Reetz	STUDIEN 282-	6932

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EXAMINER

METZMAIER, DANIEL S

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/831,566

Applicant(s)

REETZ ET AL.

Examiner

Daniel S. Metzmaier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 Jan. 2004 & 29 July, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### DETAILED ACTION

Claims 21-45 are pending.

#### *Specification*

1. The disclosure is objected to because of the following informalities: page 5, line 2; the range "0,5-5 nm" should read "0.5-5 nm".

At page 6, lines 19 and 21; "betains" should be spelled "betaines".

At page 7, lines 9 and 13; "0,5" should be "0.5".

At page 8, line 18; "0,1" should be "0.1".

At page 9, line 13; "0,4" should be "0.4".

At page 10, line 2; "0,1" should be "0.1".

At page 10, line 24; "4,85" should be "4.85".

At page 11, line 7; "11,5" should be "11.5".

At page 11, line 28; "0,1" should be "0.1".

At page 12, line 1; "1,6" should be "1.6".

At page 12, line 19; "2,97" should be "2.97".

At page 12, line 20; "2,59" should be "2.59".

At page 12, line 24; "0,1" should be "0.1".

At page 13, line 20; "0,1" should be "0.1".

At page 15, line 8; "11,5" should be "11.5".

At page 16, last line; "0,1" should be "0.1".

At page 16, line 11; "0,5" should be "0.5".

At page 16, line 14; "0,6" should be "0.6".

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At page 16, line 23; "0,1" should be "0.1".

At page 17, line 5; "0,5" should be "0.5".

At page 17, line 8; "0,6" should be "0.6".

At page 17, line 17; "0,1" should be "0.1".

At page 17, line 28; "0,5" should be "0.5".

At page 18, line 10; "0,1" should be "0.1".

At page 19, line 14; "1,7 $\pm$ 0,4" should be "1.7 $\pm$ 0.4".

At page 20, line 14; "0,1" should be "0.1".

At page 21, line 26; "0,1" should be "0.1".

At page 22, line 1; "0,1" should be "0.1".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 21-45 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants last amendment, After Final Amendment dated 28 July 2003, requires 100% water-soluble metal oxide colloid. Said colloid having particle sizes ranging from 0.5 – 5 nm, wherein the said metals are of a

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groups VIb, VIIb, VIII, Ib or IIb of the Periodic Table. Said new limitation is deemed new matter for the following reasons.

(1) It is unclear where applicants provide basis for the new limitation requiring 100% water-soluble metal oxide. Applicants (page 3, lines 7-9) disclose water-soluble metal-oxide colloids and bimetal-oxide colloids. The instant limitation of "100% water-soluble metal oxide colloid" has not been found in the originally filed disclosure.

(2) Applicants claims set forth metal-oxides that are 100% water soluble and also claim colloids having a particle size of 0.5 – 5 nm. Said limitations are inconsistent since "completely redispersible in water" is not the same as 100% water-soluble. Furthermore, a 100% water-soluble metal oxide would yield a true solution in water. The metal oxide cannot both be 100% water-soluble and a colloidal particle at the same time. Attention is directed to the Advisory Action mailed 05 August 2003.

(3) It is unclear how metal-oxides of at least groups VIb, VIIb, VIII or IIb are 100% water soluble since said oxides are art known to have limited water solubility. The examples disclose colloidal metal oxides that are redispersible in water but are not disclosed as 100% water-soluble.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 24, 25, 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 24, 25, 30 and 31, the phrase "the main group of the Periodic Table" lacks antecedent basis.

***Response to Arguments***

6. Applicant's arguments filed October 18, 2005 have been fully considered but they are not persuasive.

7. Applicants (page 10) assert at page 4 of the May 27, 2003 response it was pointed out that the object of the invention is "stable colloids in 100% water". Said characterization is very different from "100 % water-soluble metal oxide colloids". The only materials that are "100% water-soluble" are those that are "100% miscible", such as water/water or methanol/water.

Furthermore, the examples disclose colloidal metal oxides that are redispersible in water but are not disclosed as 100% water-soluble.

***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Daniel S. Metzmaier**  
**Primary Examiner**  
**Art Unit 1712**

DSM